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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,928	04/01/2004	Kerry D. Hinson	60680-1780	2927

10291 7590 07/28/2005

RADER, FISHMAN & GRAUER PLLC
39533 WOODWARD AVENUE
SUITE 140
BLOOMFIELD HILLS, MI 48304-0610

EXAMINER
SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
3677	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/708,928	HINSON ET AL.	
	Examiner	Art Unit	
	Jeffrey Sharp	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 May 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

[1] This action is responsive to Applicant's remarks/amendment filed on 23 May 2005 with regard to the Official Office action mailed on 18 February 2005.

Status of Claims

[2] Claims 1-8 are pending.

Drawings

[3] The drawing(s) were previously objected for informalities. In view of Applicant's replacement drawing(s) submitted on 23 May 2005, all previous objection(s) to the drawings have been withdrawn. Accordingly, the changes have been entered.

Figures 3 and 4 are currently objected to as not displaying information pertaining to Day 7 and 10. Furthermore, data lines for "Initial", "Day 3", "Day 7", "Day 10", "Day 14", "Day 17", and "Day 21" are illegible. It appears the graph may have been photocopied from a direct printout of an oscilloscope capture. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

Specification

[4] The disclosure was previously objected to for informalities. Applicant has successfully addressed these issues in the amendment filed on 23 May 2005. Accordingly, the objection(s) to the specification have been withdrawn.

Response to Arguments/Remarks

[5] Claim 1 was previously rejected under 35 U.S.C. 102(b) as being anticipated by Futamura US-4,118,041.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive in view of the amendment to claim 1 filed on 23 May 2005.

Applicant has amended the foregoing claim(s) such that the Futamura reference no longer anticipates the limitations disclosed therein. Consequently, upon further consideration, this rejection has been withdrawn, and a new ground(s) of rejection necessitated by amendment is made below.

[6] Claim 1 was previously rejected under 35 U.S.C. 102(b) as being anticipated by Lindow US-4,571,133.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive in view of the amendment to claim 1 filed on 23 May 2005.

Applicant has amended the foregoing claim(s) such that the Lindow reference no longer

anticipates the limitations disclosed therein. Consequently, upon further consideration, this rejection has been withdrawn, and a new ground(s) of rejection necessitated by amendment is made below.

[7] Claims 1 and 3 were previously rejected under 35 U.S.C. 102(b) as being anticipated by Kammerer et al. US-5,655,489.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive in view of the amendment to claim 1 filed on 23 May 2005.

Applicant has amended the foregoing claim(s) such that the Lindow reference no longer anticipates the limitations disclosed therein. Consequently, upon further consideration, this rejection has been withdrawn, and a new ground(s) of rejection necessitated by amendment is made below.

[8] Claim 1 was previously rejected under 35 U.S.C. 102(b) as being anticipated by Penn et al. US-4,456,268.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive in view of the amendment to claim 1 filed on 23 May 2005.

Applicant has amended the foregoing claim(s) such that the Lindow reference no longer anticipates the limitations disclosed therein. Consequently, upon further consideration, this rejection has been withdrawn, and a new ground(s) of rejection necessitated by amendment is made below.

[9] Claims 1, 4, and 5 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over the Futamura, Lindow, and Greenhill US-4,752,178 references.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are moot in view of the following new ground(s) of rejection.

[10] Claims 1 and 2 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over the Penn et al., Seymour II et al. US-2004/0159310 A1 and Greenhill US-4,752,178 references.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are not persuasive, and thus, this rejection is maintained.

Applicant's statement that Penn et al. teaches Belleville washers and leaf spring is acknowledged. However, the examiner takes the position that Belleville washers are art-recognized equivalents of wave springs, or at least within an obvious scope of a wave spring. As supporting evidence, see US-6,745,995 to Hu et al. col. 5 lines 48-50 & 56-57, which suggests the substitution of Belleville washers for wave springs. Furthermore, the teachings of Seymour II et al. expressly and clearly state (in paragraphs 0027 and 0028) that wavy (i.e., "wave springs" 62b) are equivalents/replacements for Belleville washers. The Seymour II et al. reference was originally used for demonstrating the simple fact that Belleville washers and wave springs are art-recognized equivalents within the field of endeavor.

Greenhill merely demonstrates that wave springs may be adapted to be sized to fit either within or around a retention sleeve.

Accordingly, it would not have been "unobvious" to one having an ordinary skill in the art, in view of the abovementioned references when taken as a whole, to size the Belleville washer (or the like, "wave spring") taught by Penn et al. to have its inner diameter larger than the outer diameter of the retention sleeve. Those of ordinary skill in the art would appreciate that a modification such as a mere change in size of a component would be obvious. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955)*. See also, MPEP § 2144.04 which states: *In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976)* ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." *531 F.2d at 1053, 189 USPQ at 148.*). In *Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984)*, the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

In any event, previously dependent claims 3-5 now depend on the limitations of both previous claims 1 and 2 (now cancelled), and therefore the new grounds of rejection below is required.

New Grounds of Rejection Necessitated by Amendment

Claim Rejections - 35 USC § 102

[11] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

[12] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[13] Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baumann US-4,684,103.

In short, Baumann teaches: a fastener assembly having a threaded fastener (30) having a head portion (A) and a shaft portion (E), a retention sleeve (19) disposed about the threaded fastener (30), and a wave spring (22) disposed about the retention sleeve (19), said wave spring

having an inner diameter slightly larger than an outer diameter of the retention sleeve (19). The fastener assembly acoustically decouples components (13) and (24).

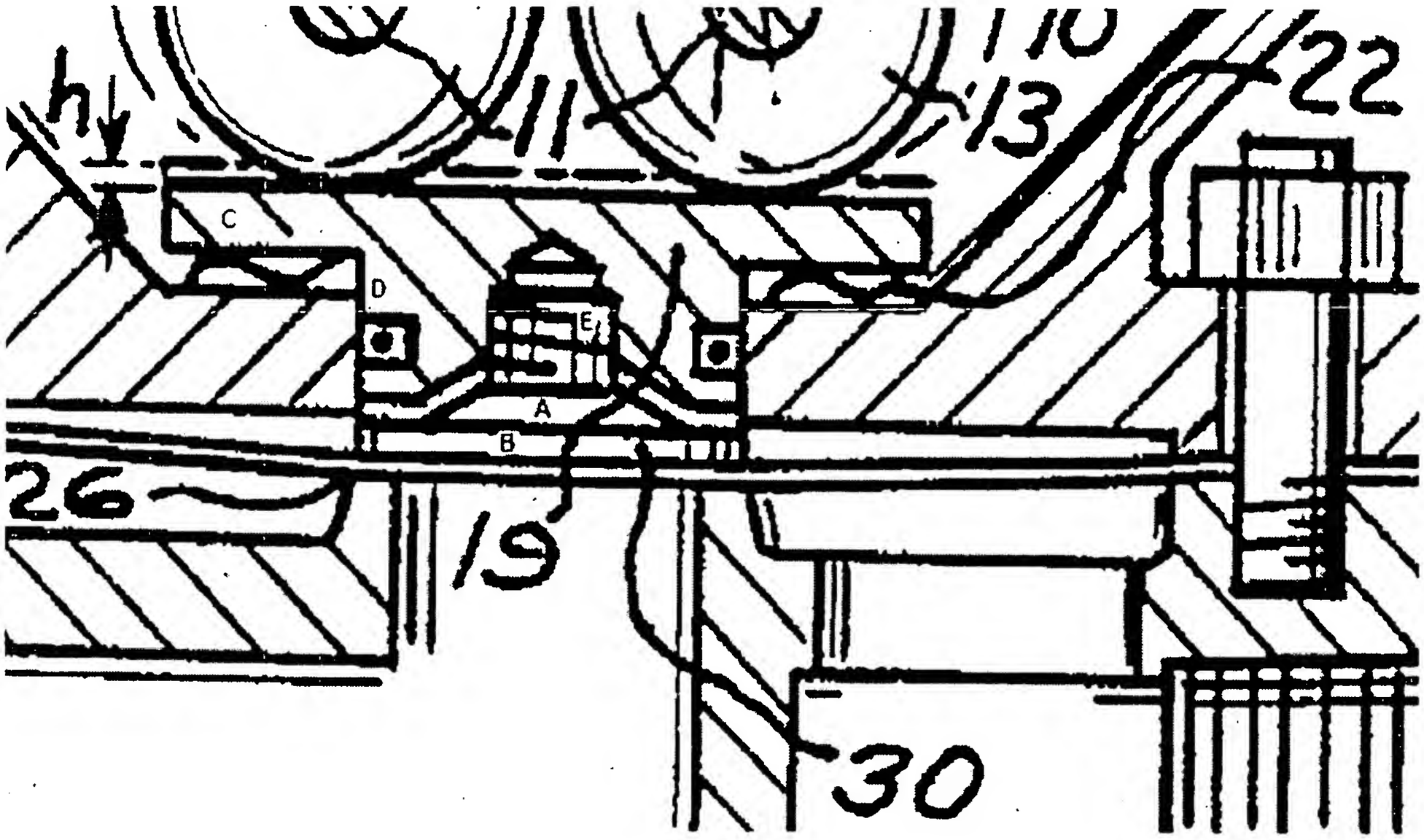
Note that Baumann suggests a radially projecting collar (B) on the head portion (A) of the threaded fastener (3), pertinent to claim 3.

Note that Baumann suggests a radially outwardly projecting head flange (C) on the retention sleeve (19), pertinent to claim 4.

As for claim 5, the examiner takes the position that it would be obvious to one of ordinary skill in the art to make all components of a metal, as a preferred material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.* It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material.

As for claim 6, the wave spring (22) abuts the retention sleeve (19), such that it never fully compresses (only deflects a distance h in a compressed state).

Note that the retention sleeve (19) has a downwardly extending "necking portion" (D), that extends downward from the flange section (C).



Baumann US-4,684,103

[14] Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hu et al. US-6,745,995.

In short, Hu et al. teach: a fastener assembly having a threaded fastener (9) having a head portion (A) and a shaft portion (E), a retention sleeve (5b) disposed "about" the threaded fastener (9), and a wave spring (14, col. 5 lines 48-50 & 56-57) disposed about the retention sleeve (5b), said wave spring having an inner diameter slightly larger than an outer diameter of the retention sleeve (5b). The fastener assembly acoustically decouples components (16) and (12).

Note that Hu et al. suggest a radially projecting collar (B) on the head portion (A) of the threaded fastener (9), pertinent to claim 3.

Note that Baumann suggests a radially outwardly projecting head flange (C) on the retention sleeve (5b), pertinent to claim 4.

As for claim 5, the examiner takes the position that it would be obvious to one of ordinary skill in the art to make all components of a metal, as a preferred material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.* It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material.

As for claim 6, the wave spring (14) abuts the retention sleeve (5b), such that it never fully compresses.

Note that the retention sleeve (5b) has a downwardly extending "necking portion" (D), that extends downward from the flange section (C).

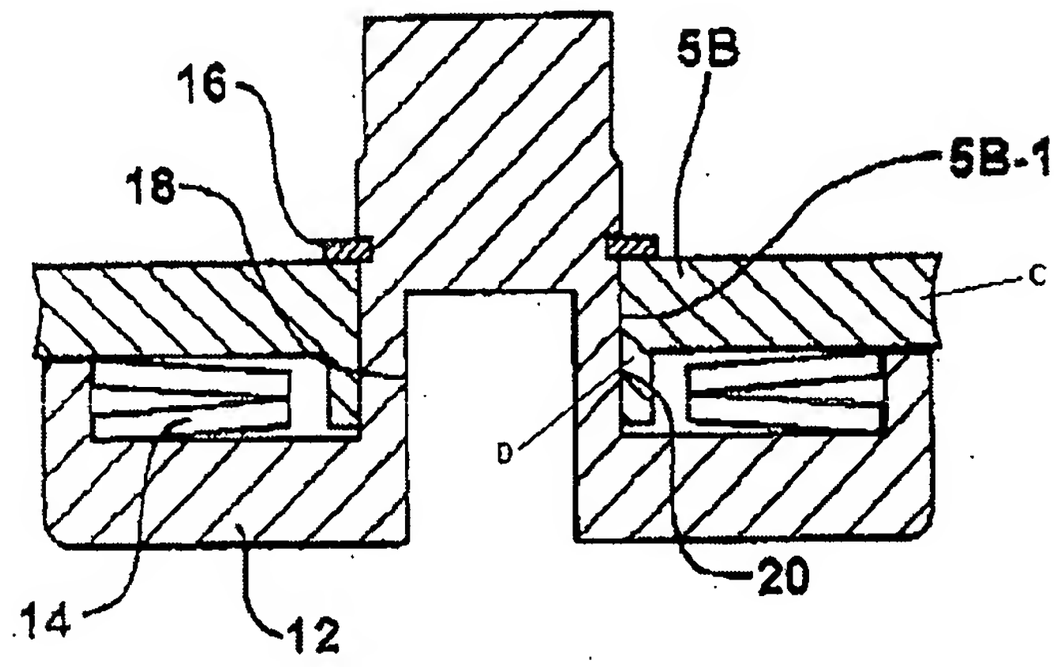


FIG - 17

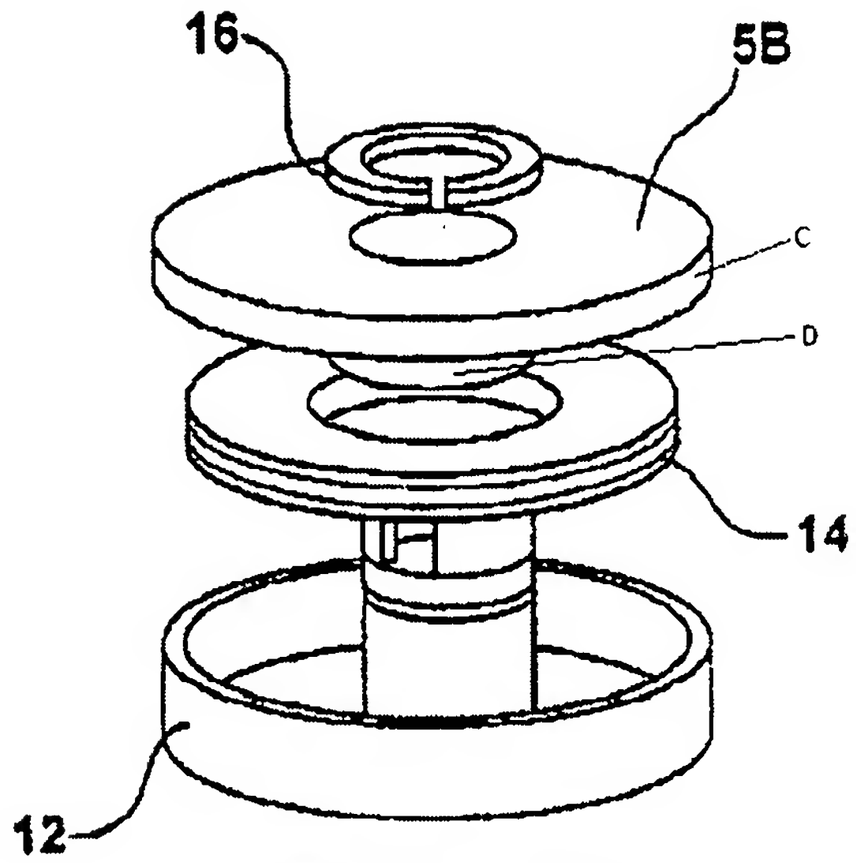


FIG - 18

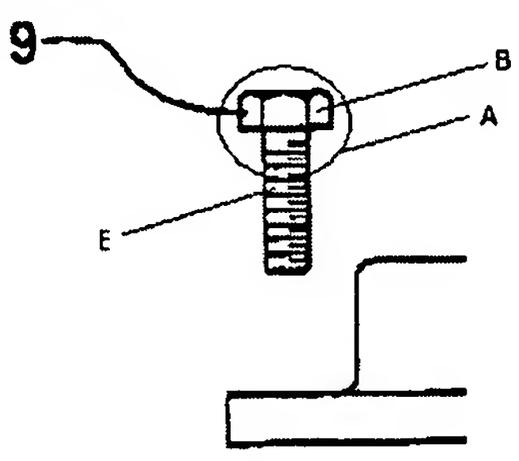


FIG - 1
(PORTION)

Hu et al. US-6,745,995

Conclusion

[15] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[16] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

NEW CENTRAL FAX NUMBER
Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a

regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS

7/12/05

ROBERT J. SANDY
PRIMARY EXAMINER